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REPORT ON THE PROPERTY

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Énergie et Ressources
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Québec 

R E P O R T

on the

W. A. READ CLAIMS

BOURLAMAQUE TOWNSHIP, QUEBEC

By

M. H. Loveman

June 18, 1925.

QUEBEC DEPARTMENT OF MINES

MINERAL DEPOSITS BRANCH

No G M- 6945A

REPORT

on the

W. A. READ CLAIMS

BOURLAMAQUE TOWNSHIP, QUEBEC.

Conclusions.

CONCLUSIONS

The property is still distinctly in the prospect stage, neither proved or disproved. This is true despite the fact that a considerable expenditure has been incurred during the last twelve months. The past work has unfortunately been so scattered and so executed that very little definite information has been secured. Being a prospect the deductions formed from an examination of it cannot be definite ones as to the results which will be secured by further work, but are simply an attempt to determine whether the possibility of proving up a profitable mine justifies the expenditure of a definite sum in further exploration.

Regarded from this viewpoint, it is considered that the present showing does justify a further exploration of the property. This conclusion is based on the following facts:-

1. The general geological conditions are on the whole of a favorable nature.

The favorable factors are-

- (a) strong, well defined quartz veins,
- (B) pronounced zones of schisting,
- (c) porphyritic rocks intrusive into the Keewatin

either close to or forming the walls of the veins,

(d) strong sulphide mineralization.

(e) considerable free gold in the Float vein,

(f) commercial values over a stoping width at the only point the Float vein is exposed.

The unfavorable factors are-

(a) apparent localization of the gold values in the quartz vein proper with low values in the pyritized schist,

(b) lack of proved horizontal extension of the veins (This may be due entirely to inability to trench along the veins because of swampy ground).

(c) excepting the Float vein, no values of any significance or approaching a commercial grade have been found over minable widths.

The favorable factors outweigh the unfavorable ones, especially when the major emphasis is laid on the Float vein.

2. The Float vein, the most promising showing on the property and the one on which the recommendations for future work are entirely based, shows the following conditions :-

(a) A surface outcrop, exposed at only one point for about thirty feet, showing a seven foot width of quartz and three feet in the footwall of heavily mineralized schist with quartz stringers.

(b) The shaft, sunk to 120 feet, measured down the vein, was under water and the vein consequently could not be examined and sampled. It is reported, however, to be unchanged in character, width and amount of mineralization.

(c) Considerable free gold has been found at all points

where the vein has been cut.

(d) Values derived from sampling at the only three points where the vein has been out gave-

- 1/ Surface \$19.60- 5 ft. width- M.H. Loveman
(right angles)
- 2/ 40 ft. down-commercial grade
over stoping width-Hollinger engineers
- 3/ Bottom (120'down) - \$2.89 -4'6") G. Cruse
\$0.83 -5'0")

The samples at the bottom taken by Mr. Cruse, because of difficulties in sampling and method of sampling cannot be accepted as being reliable.

It should be noted that the above facts are confined to one point on the vein and to a depth of 120 feet. No information has been secured as to the horizontal extension.

The known facts are, however, of an encouraging character and the determination of the dimensions and grade by drilling and, if this is favorable, by further underground exploration, is fully justified.

3. Numerous other veins, in addition to the Float vein, such as the "A", "B" and "C" veins prove the widespread occurrence of the veins and of the mineralization. Commercial values have not, however, been disclosed on these veins, but as they are similar geologically to the Float vein, favorable results on the latter would be strong grounds for assuming that a repetition of such results might be found on some of the other veins with further development. The result of the sampling on these other veins is, however, of such a negative and discouraging character, that it is considered that the further work should be concentrated on the Float vein and

that the result of the work on that vein should be the determining factor as regards the future policy.

The actual chances of successful results cannot be stated in terms of a definite ratio. The possibilities can perhaps best be visualized if the Float vein is considered alone and the remainder eliminated. From this angle, the property is a prospect with a good surface showing as regards values, vein width and geological conditions and with the vein continuing unchanged to 120 feet in depth with values not definitely known. The chances of turning any individual prospect of such a character into a profitable mine are small but the ratio of ultimate profit, if successful, compared to the additional loss if unsuccessful is so large as to justify the gamble when the indications are such as in the Float vein.

Recommended Work.

RECOMMENDED WORK.

It will be noted that the recommended work is almost entirely concentrated on the float vein. It is considered that this is by far the most favorable showing and that if the work on it gives negative results, the exploration of the remaining veins should be either abandoned entirely or confined to a few short diamond drill holes.

Recommended work.

First Stage.

The Float vein should be first diamond drilled for the purpose of proving lateral and vertical extent of the vein. The actual values secured in the drilling will be of minor importance, as the manner in which the values occur,

rather coarse free gold, makes the securing of reliable assay results from core samples, doubtful. The proving up of the extension of the vein itself even if the values are erratic will be sufficient justification for the next step regardless of the actual grade.

Outline of drilling plan.

A plan of drilling cannot be rigid as the successive holes must necessarily depend somewhat on the results of the preceding ones. It is proposed that holes spaced at 100' intervals horizontally be drilled from the south. Two holes should be drilled from each set up and so inclined as to cut the vein at 100 ft. and 250 ft. vertically from the surface. With the shaft as a central point, the holes should be spaced east and west from it. Seven set ups would intensively test the vein for 600 feet horizontally and 250 feet vertically and should definitely determine whether dewatering and underground work should be undertaken and in addition give conclusive information as to continuity of the vein and possibly fairly reliable data as to values. Such a plan would imply about 3000 feet of drilling.

Second Stage.

A worthwhile extension of the vein having been proved, the shaft would be unwatered and drifts extended both east and west on the vein. The length of these drifts will depend on the data secured from the drilling and on the results secured as they are extended. It is not considered that it will be necessary to sink further at the present stage.

The completion of the two steps outlined above should give enough data to definitely determine whether an ore shoot of commercial grade is present in the Float vein. It will not, without further sinking, prove whether an ore body of workable size is present, but it will determine whether the possibilities are so favorable as to fully justify further commitments or whether the work should be abandoned.

Estimated Expenditures.

ESTIMATED EXPENDITURES.

It is estimated roughly that the proposed work will amount to 3000 to 5000 feet of drilling and 700 feet of drifting. The total cost of such work, including steam plant for the underground work, would approximate \$ 75,000.

The installation of the steam plant and restarting of underground work should be deferred until after the completion of a sufficient amount of drilling to prove the lateral and vertical extension of the Float vein. Negative results in this drilling should cause the annulling of the underground work. Consequently, the expenditure is really in two parts.

(1) a preliminary outlay of a maximum of \$25,000 for diamond drilling.

(2) a further outlay, dependent on favorable results from the preliminary drilling of \$50,000 on steam plant, underground work and further drilling.

The allocation of this expenditure would be roughly as follows:-

1st Stage-Diamond Drilling.

3000 ft. drilling at \$4. per ft	=	\$12,000.
Road construction		3,000.
Boat-		2,500.

Superintendence, camps,
misc. construction, overhead
and unforeseen \$7,500.

\$25,000. \$25,000.

2nd Stage- Underground Werk.

Plant- \$10,000.
Installation & construction 5,000.
700 ft. of drifting at \$25 per ft. 17,500.
Additional Drilling 7,500.
Unforeseen 10,000.

\$50,000. \$50,000.

Total - - - - - \$75,000.

By the above plan if unfavorable results are secured, the loss can be cut before the expenditure exceeds \$25,000.

It should be understood that the complete expenditure of the full \$75,000 will simply place the proposition, assuming favorable results, in a position where further expenditures on a far larger scale will be necessary, but that these further expenditures will be based on much more tangible information than is now possessed and that from that point on the risk involved will be changed from a pure gamble as at present to a proposition with probably more than an even chance of success and with the risk a constantly diminishing factor.

(Signed) M.H. Loveman.

New York, N.Y.
June 18, 1925
MHL:ML

REPORT

(1)

on the

W. A. READ CLAIMS

BOURLAMAQUE TOWNSHIP, QUEBEC.

Introduction

The following report is based on ten days spent on the property from May 26th to June 4th, 1925. Several short visits had been made previously in the summer of 1924.

As the property is purely a prospect, the discussion of the various economic factors which would be involved in the event of a mine being finally developed would be most premature at this time. However, in the section under general economic conditions, the various main points have been discussed in a general way so as to present a picture of the conditions in the area.

Location and Access. The property is situated in Bourlamaque Township, Quebec. Access in summer is by good water route, approximate 58 miles in length, from Amos to a landing three and a half miles from the claims with which point it is connected by a rough wagon road. Amos is a station on the Canadian National R.R. 470 miles northwest of Montreal. During the winter, access is by sleigh over a road about 38 miles long leaving the railroad at Barraute, a station 25 miles east of Amos.

Refer to

Maps Nos. I

Quebec. Access in summer is by good water route, approximate 58 miles in length, from Amos to a landing three and a half miles from the claims with which point it is connected by a rough wagon road. Amos is a station on the Canadian National R.R. 470 miles northwest of Montreal. During the winter, access is by sleigh over a road about 38 miles long leaving the railroad at Barraute, a station 25 miles east of Amos.

The river and lake route from Amos is a deep water way, known as the Harricana River, with no portages or rapids and consequently is suitable for steamers and gasoline boats of several feet draft and allows of the towing of scows. Consequently, in handling material in bulk, the cost would be less in summer than by sleigh over the winter route. This is an unusual and favorable factor for properties remote from the railroad in northern Quebec or Ontario.

The road from the landing to the claims, $3\frac{1}{2}$ miles long, can, by the expenditure of a few thousand dollars, be put in shape for wagon transport and thus suffice for the development period.

Property.

A claim map is not presented with this report, as the only one available, the township recording office map, is entirely misleading. The property has just been surveyed, and the resulting map should be secured from Mr. Cruse as soon as it is completed.

The property as originally staked consisted of four claims of a total of 450 acres. The present survey shows the acreage to be greatly in excess of this and following government instructions, it is being cut up into a greater number of claims.

It would be advisable to have the standing of the various claims carefully gone over in Quebec, as there is considerable confusion in the area as a whole.

due to very poor claim staking.

Topography.

The country is of the type normal to this general section of Quebec, low hills and ridges with shallow intervening valleys, the latter generally containing lakes or rivers. The maximum relief is only a few hundred feet with in general a vertical range of less than one hundred. Glacial action has been pronounced. The rock, if not covered by glacial material, is generally scraped clean and shows practically no signs of alteration. The area is covered by a fairly heavy growth of timber partially burnt over.

General Economic conditions.

The general economic conditions in the area are very similar to the producing camps of northern Ontario, with the exception of its distance from the railroad and such minor factors as differences between the mining laws and taxes of Ontario and Quebec.

Climate.

The long and severe winters have been proved as not being derogatory to cheap and efficient mining operations, although they are somewhat of a drawback during the initial prospecting and construction stages.

Labor.

A plentiful supply of labor would be available if permanent operations were conducted, The wage scale of Porcupine would undoubtedly rule the rate for underground and mill labor. Surface labor would possibly be slightly lower.

Power & Fuel.

The claims contain a large amount of timber suitable for wood fuel and during the initial stages of underground development and diamond drilling, it would be the most economical source of power. It would not, however, be suitable for permanent operations.

The permanent power would have to be derived either from water power or from coal or oil fuel. In this regard, the property is unfortunately situated as there is no known water power of any magnitude in the vicinity and no present transmission lines anywhere in the area. In the event of a number of producing mines being developed in the Harricana section electric power would undoubtedly be brought in from a distance, but in the case of only one or two moderate sized mines, it would probably not be commercially feasible. In this eventuality, it would probably be necessary to use some form of imported fuel, oil or coal.

The power question would not, however, be a serious enough factor by itself to change an otherwise favorable outlook.

Transportation.

Transportation, regardless of whether a railroad will ever be constructed into this section, is not a serious question. It would be necessary to eventually connect the landing at the lake with the mine (3½ miles) by a road suitable for motor transport. With this accomplished, freight can be loaded at Amos on to a boat and delivered at the mine the same day with only one rehandling.

Water.

Water for steam and domestic purposes could be secured from the underground workings and wells. If milling was undertaken, it might be necessary to pump from the lake.

Geology.
Refer to
Map No.2

On the map, the geology is indicated only in very rough outline. The two types of rock, Keewatin agglomerates and intrusive porphyry are, over considerable areas, too intimately interbanded to be indicated separately except by very detailed work. Large areas are covered by swamp.

The general country rock of the area is Keewatin with an unusually strong development of agglomerate and breccia. The more normal Keewatin, lava flows of various types, is present only in subordinate amounts on the property, although it occurs in much greater amounts in the adjoining areas. The coarse agglomerate on weathered surfaces much resembles a true conglomerate, but when broken, the fragments are seen to be essentially the same rock as the matrix.

Intruded into the Keewatin and consequently younger are numerous irregular masses and dikes or porphyritic rocks probably diorite porphyries. The most extensive body exposed forms the entire mass of the prominent ridge between "A" and "C" veins. Around the edges of the larger bodies, a great number of tongues extend out into the

surrounding Keewatin becoming gradually less in amount as the main bodies are left behind. These tongues frequently run North and South or at right angles to the general trend of the Keewatin.

In numerous instances, notably the dike southwest of the incline shaft on the Float vein, a series of dikes of later age than the remainder appears to be indicated. Although these dikes are closely similar to the other intrusive bodies, yet the less altered condition of the rock and the greater prominence of the feldspars was suggestive of a different age. Microscopic examination, however, shows them to be entirely similar, and it is therefore believed that all the intrusives are closely related in type and age and can be all classified as diorite porphyries.

Although all these intrusive rocks are undoubtedly younger than the Keewatin into which they are intruded their actual age cannot be determined. A definite correlation with the Algoman intrusives of Porcupine and other points in Ontario cannot be made, although the fact that here, as in Ontario, there is some genetic relation between the intrusives and the ore is suggestive that they may be contemporaneous.

Two types of veins have been uncovered.

1. Prominent quartz veins with well defined walls carrying free gold, pyrite and slight amounts of chalcopyrite

Veins.
Refer to
Map No.2

and with considerable hornblende, tourmaline and fragments of the wall rocks. This type is represented by the Float vein, "A" vein and to a minor degree by "D" vein.

2. Schisted zones in both Keewatin and the intrusive rocks with quartz and considerable pyrite. Represented by "B" vein and minor occurrences.

"C" vein is a combination of '1' and '2' .

The finding of a considerable number of large angular boulders of float carrying considerable free gold led to the subsequent discovery of the vein in place a short distance to the north of the location of the float.

The vein occurs in low ground and it has only been exposed at one point for about thirty feet in length. It occurs in Keewatin with a dike or porphyry outcropping to the southwest and apparently intersecting the vein to the west. The dike appears to be either faulted by movement along the vein or possibly to have turned along it for a short stretch before continuing on its original course.

Where stripped the quartz was approximately seven feet in width with an additional several feet in the foot-wall considerably schisted and carrying much pyrite and containing numerous stringers of quartz extending out from the quartz vein proper. The vein showed considerable free gold occurring in the quartz itself, in the hornblende and tourmaline and also directly in the coarse cubes of pyrite. The pyritized wall rock does not, however, carry any considerable proportion of the values.

Float Vein.
Refer to
Maps Nos.
2 & 3.

During the winter, a shaft was started by Mr. Cruse in the hanging wall and passing through the vein at 38 ft. down was then inclined under the vein, the footwall of the vein being carried as the hanging wall of the shaft. (Map No. 3 represents the conditions). At the bottom, about 120 ft. measured down the vein, a crosscut was driven South through the vein. Owing to the inability of the plant to handle the water, the shaft had to be abandoned and at the time of this investigation was under water and could not be examined. The vein is stated to have maintained its width and character unchanged to the bottom. It dips south at approximately 50° .

Values.

The vein itself has only been sampled at three points. The surface was sampled by the writer, a channel across the quartz. 6'6" wide giving \$19.60. At approximately 40ft., down samples were taken by Hollinger engineers and their results are stated to have shown a commercial grade. The crosscut from the bottom was sampled by Mr. Cruse, the results giving \$2.89 over a 4'6" width on the east side and \$0.83 on the west side. Mr. Cruse's method of sampling, chip sampling and the elimination of free gold if observed, is not a reliable method and the results cannot be accepted as of much significance.

Considerable amounts of free gold were present at all points where the vein was intercepted.

Conclusions.

The Float vein is the most promising showing on the claims and the further exploration recommended is based on this occurrence and it is recommended that the work be almost entirely concentrated in this one section.

The "A" vein lies approximately 1500 feet east of the Float vein. Again in this instance, the surface conditions limit the length of vein which it has been possible to expose, in this case about 100 feet. The vein is a strong quartz vein with well defined walls and closely resembles the Float vein in general appearance with, however, weaker mineralization and except for picked samples no gold values of significance. The outcrop is in the shape of an arc, probably due to strike faulting and it is not possible to definitely determine its strike. The unprospected gap between the "A" vein and the Float vein is too great to allow of any assumptions as to their being one vein.

The "A" vein shows from two to six feet of quartz with a varying amount of pyritized schist on both walls. It dips south at about 70°.

Values.

Seven samples taken at various points in the "A" vein gave one return of \$2.69 and the remainder under \$2.00. Because of the negligible values, a map showing the location of the samples is not presented.

Conclusions.

The "A" vein is closely similar in general characteristics to the Float vein and although at the one point exposed does not carry anything approaching commercial values, yet its strong character justifies a further testing in depth and along the strike provided that the Float vein is first proved to contain a valuable ore body. Although the Float and "A" veins cannot be definitely connected, yet it appears probable that they both occur along the same general east and west band and consequently the area linking them up is favorable prospecting ground.

"B" vein.

As is indicated on Map No.2, the "B" vein converges towards "A" vein, but from surface indications, it appears doubtful whether it extends far enough west to intersect it.

The "B" vein is a pronounced schisted zone proved for 500 feet in length and with the strongest exposure at the east and where it disappears in low ground. It ranges from three to eight feet wide with well defined walls. Quartz occurs as lenses and narrow bands in the schisted zone. Fairly strong pyrite mineralization is present while the characteristic gangue minerals of the area, hornblende and tourmaline, are only present in small amounts. The zone is entirely within the intrusive porphyry which forms both walls.

Values.

The work on the "B" vein consists of a number

of irregularly spaced cross trenches with very little breaking into solid rock. Consequently, because of surface oxidation, reliable sampling is not possible. One channel sample was taken at the eastern end, the most favorable looking point. Over an 8ft. width, only a trace of gold was obtained. A single sample is naturally of very little importance, but in conjunction with former results, it can be safely assumed that the area exposed along the schisted zone does not carry gold values.

Conclusions.

No work should be done on the "B" at the present stage.

"C" vein.

The "C" vein is the most southerly of the veins and outcrops along the edge of an extensive swamp. It has not been possible to trench for its extension in either direction. As stated previously, it partakes of the nature of both the distinct quartz veins and the schisted zone. Quartz and strongly mineralized Kewatin schist occur over a zone about fifty feet wide with a quartz diorite forming the south wall.

During this spring, a vertical shaft 70 ft. deep was sunk near the hanging wall of the mineralized zone which dips north at approximately 75°. At the present time, a short crosscut is being driven south to cut that portion of the zone which did not dip through the shaft.

Values.

The only surface trench was caved in and could not be sampled. The shaft was carefully channel sampled at 6 ft. intervals, with entirely negative results, nothing exceeding a trace being found.

Conclusions.

The crosscut now being driven should be sampled and if favorable values are not found, the work on the "C" vein should be stopped at once.

"D" Vein.

The "D" vein has been exposed by stripping and trenching for about 350 feet. It varies from a few inches to two feet of quartz. It is very sparsely mineralized and was not considered as worthwhile sampling. Towards the east end, it splits into two branches and gradually pinches out. It is possibly the eastern extension of the belt in which the "A" and Float veins occur.

It is not worth further investigation.

Other minor veins occur at various points on the claims, but nothing justifying further investigation. In addition, large areas have not been prospected at all. It is, however, believed that the future of the property depends on the results which will be secured on the known veins, most especially on the Float vein, and if these do not give worthwhile results, further prospecting should not be undertaken.

(13)

The conclusions derived from the facts discussed in the preceding pages, the recommendations for future work and an estimate of the cost of such work, are given at the beginning of the report.

(Signed) M.H.Loveman.

New York, N.Y.
June 18, 1925.
MHL:ML.